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First Named Inventor	Nomoto, Toyohiro	
Art Unit	2122	
Examiner Name	Unassigned	
Attorney Docket Number	16869N-102100US	

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Date September 19, 2005			Reg. No.		41,405		
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# CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

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Signature		Sa	load	لمعا			
Typed or printed name	Jok	B. Salv	ador			Date	Sentember 19, 2004

Attorney Docket No.: 16869N-102100US

Client Ref. No.: NT1374US

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

TOYOHIRO NOMOTO et al.

Application No.: 10/729,536

Filed: December 5, 2003

For:

DATA CONVERSION METHOD

AND COMPUTER SYSTEM

THEREFOR

Customer No.: 20350

Examiner: Safet Metjahic

Technology Center/Art Unit: 2161

Confirmation No.: 1904

RENEWED PETITION TO MAKE SPECIAL FOR NEW APPLICATION UNDER M.P.E.P. § 708.02, VIII & 37

C.F.R. § 1.102(d)

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In response to the Decision dated July 28, 2005 dismissing the original petition to make special, Applicants respectfully submit a renewed petition to make special the above-identified application under MPEP § 708.02, VIII & 37 C.F.R. § 1.102(d). The application has not received any examination by an Examiner.

- (a) The Commissioner has previously been authorized to charge the petition fee of \$130 under 37 C.F.R. § 1.17(i) and any other fees associated with this paper to Deposit Account 20-1430.
- (b) All the claims are believed to be directed to a single invention. If the Office determines that all the claims presented are not obviously directed to a single invention, then Applicants will make an election without traverse as a prerequisite to the grant of special status.

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- (c) Pre-examination searches were made of U.S. issued patents, including a classification search, a foreign patent database search, and a literature search. The searches were performed on or around October 6, 2004, and were conducted by a professional search firm, Mattingly, Stanger & Malur, P.C. The classification search covered Class 341 (subclass 87), Class 707 (subclasses 4, 5, 101, and 104.1), and 715 (subclass 523). Because of the large size of these subclasses, keywords were used to narrow of number of documents returned. The foreign patent database search was conducted using Espacenet in international subclass G06F17/30B2, directed to file format conversion for database management and structures. The literature search was performed using DIALOG online databases. The inventors further provided one reference considered most closely related to the subject matter of the present application (see reference #8), which was cited in the Information Disclosure Statement filed on December 5, 2003.
- (d) The following references, copies of which were previously submitted, are deemed most closely related to the subject matter encompassed by the claims:
  - (1) U.S. Patent No. 5,493,671;
  - (2) U.S. Patent No. 5,708,828;
  - (3) U.S. Patent No. 6,161,103;
  - (4) U.S. Patent No. 6,643,649 B2;
  - (5) U.S. Patent Publication No. 2002/0161754 A1;
  - (6) U.S. Patent Publication No. 2003/0055820 A1;
  - (7) U.S. Patent Publication No. 2004/0002983 A1; and
  - (8) Japanese Patent Publication No. JP 2001-022764.
- (e) Set forth below is a detailed discussion of references which points out with particularity how the claimed subject matter is distinguishable over the references.

#### A. Claimed Embodiments of the Present Invention

The claimed embodiments relate to a data conversion method that is suitable for use in a large scale database, and that enables a reduction in load of a data conversion server as well as an easy design of a conversion program.

Independent claim 1 recites a data conversion method for converting table data of a database. The method comprises separating a data conversion job used for data conversion into a data conversion server job for executing conversion processing on a data conversion server and a storage job for instructing a copy of a table on storage; executing the storage job to instruct the storage to copy the table; and executing the data conversion server job to perform data conversion of the copied table.

Independent claim 5 recites a computer system comprising a database conversion server for converting a table of a database; and storage for storing the database. The database conversion server has table volume mapping information that associates the table of the database with storage information about storage in which the table is stored. The database conversion server is configured, with reference to the table volume mapping information, to separate a data conversion job used for data conversion into a data conversion server job for executing conversion processing on the database conversion server and a storage job for instructing a copy of the table on the storage; to execute the storage job to instruct a copy of a volume containing the table; and to execute the data conversion server job to perform data conversion of the copied table.

Independent claim 6 recites a database conversion server for converting a table of a database, the database conversion server being connected to storage for storing the database. The database conversion server comprises a module configured to separate a data conversion job definition used for data conversion into a data conversion server job definition for executing conversion processing on the database conversion server and a storage job definition for instructing a copy of the table on the storage; a module configured to request a job execution engine to execute the storage job definition, and thereby the storage is instructed to copy the table; and a module configured to request the job execution engine to execute the data conversion server job definition, and thereby only fields which need to be converted are extracted from the copied table, and then the extracted fields are converted.

Independent claim 10 recites a data conversion program for converting table data of a database. The data conversion program comprises code for separating a data conversion job definition used for data conversion into a data conversion server job definition for executing conversion processing on a data conversion server and a storage job definition for instructing a copy of a table on storage; code for requesting a job execution engine to execute the storage job definition, and thereby the storage is instructed to copy the table; and code for requesting the job execution engine to execute the data conversion server job definition to perform data conversion of the copied table.

One of the benefits that may be derived is that it reduces the load of a data conversion server when converting data of a database, and enables a designer of a data conversion job to easily design the data conversion job.

## B. Discussion of the References

## 1. U.S. Patent No. 5,493,671

This reference discloses a method and an apparatus for conversion of database data into a different format on a field-by-field basis using a table of conversion procedures. An enterprise manager 18 converts information represented by a signal 14 into data having a format for use by a second version of the program on the remote computer. A local enterprise manager 36 reduces the converted data or records into fields 42. A conversion element 44 translates the fields 42 into a format compatible with the version of the selected computer program resident on the local computer. The fields, once converted, are collated into records 46 and stored within a second relational database within the data storage unit 38. See column 3, lines 57-62; and column 4, lines 48-67.

In this reference, a file management element converts information from the first database for storage in the second database. Thus, it does not teach dividing the conversion process into a storage copying job and a server conversion job. More specifically, the reference fails to teach separating a data conversion job used for data conversion into a data conversion server job for executing conversion processing on a data conversion server and a storage job for instructing a copy of a table on storage; and executing the jobs, as recited in independent claims 1, 5, 6, and 10.

#### 2. U.S. Patent No. 5,708,828

This reference discloses a system for converting data from a first type to a generic type, and then to a second type, by defining a complete data map of the input and output data environments, and creating a logical association bridge between the input and output environments. The system converts data stored on a first storage medium 24 in a first data format to a second storage medium 26 in a second data format. More specifically, the system converts data from any of various different types of input data formats to a common pre-defined generic data format. Once the data has been converted to this common generic data format, the data is then converted to the desired output data format. Column 7, lines 45-50; and Figs. 2 and 3. A complete data map of the input and output environments are defined. Column 7, line 56 to column 8, line 3; and column 8, lines 63-65. In order to logically connect or logically associate the input data environment and the output data environment, an object referred to as a data bridge is created to connect the environments in a one-to-one or one-to-many relationship. Column 10, lines 53-56.

In this reference, the server performs the entire data conversion job (column 16, line 44 to column 17, line 3) and, accordingly, there is no division of the conversion process into a storage job and a server job. More specifically, the reference fails to teach separating a data conversion job used for data conversion into a data conversion server job for executing conversion processing on a data conversion server and a storage job for instructing a copy of a table on storage; and executing the jobs, as recited in independent claims 1, 5, 6, and 10.

#### 3. U.S. Patent No. 6,161,103

This reference discloses a datamart system in which data is automatically extracted and converted by accessing a schema definition for the datamart. The system 100 includes the metadata 160, an enterprise manager 102, an extraction program 120, staging tables 130, a semantic template conversion program 140, a datamart 150, an aggregate builder 170, and a query and reporting program 104. The schema definitions 161 hold the definition of the schema for the datamart 150. The enterprise manager 102 is a program for supporting the definition of the schema, and the creation of the tables in the datamart 150 from the schema definitions 161. The aggregate builder 170 aggregates data in the datamart

150 according to the aggregate information 167 and the schema definitions 161. A set of table creation commands and table access commands are generated from the schema definition, and lead to the generation of a set of aggregate commands for generating an aggregate table.

This reference is directed to automatically defining aggregates for use in a datamart. It does not teach the division of a data conversion job into a server job and a storage job. More specifically, the reference fails to teach separating a data conversion job used for data conversion into a data conversion server job for executing conversion processing on a data conversion server and a storage job for instructing a copy of a table on storage; and executing the jobs, as recited in independent claims 1, 5, 6, and 10.

#### 4. U.S. Patent No. 6,643,649 B2

This reference discloses a utility 202 for cross-platform database queries in which a set of data items is obtained from a library server 104 and placed in a temporary table 204. The utility 202 obtains each data item from the temporary table 204 and a base object table 206, and converts them in step 308, if conversion is required, so that each data item from the temporary table 204 and the base object table 206 may be compared. The object server 106 performs the conversion. See column 2, line 44 to column 3, line 13; and Figs. 2 and 3.

In this reference, the object server performs the conversion, and there is no division of the data conversion process into a server job and a storage job. More specifically, the reference fails to teach separating a data conversion job used for data conversion into a data conversion server job for executing conversion processing on a data conversion server and a storage job for instructing a copy of a table on storage; and executing the jobs, as recited in independent claims 1, 5, 6, and 10.

### 5. U.S. Patent Publication No. 2002/0161754 A1

This reference relates to a method for accessing database table columns in which the data type stored in a column is determined, and the data type is converted to a second data before outputting the data. As seen in Fig. 3, after the data is accessed, a determination is made as to whether to convert the first data type (stored in the column) to a

second data type in step 320. If a conversion request is made by the user, it is determined which second data types should be presented as second data type conversion options to the user in step 322. The options are displayed to the user in step 324. A second data type conversion option is selected in step 326. Data type conversion is performed in step 328.

This reference is directed to data type conversion before outputting the data. It does not, however, teach the copying of a table by a storage job and conversion of data by a server job. More specifically, the reference fails to teach separating a data conversion job used for data conversion into a data conversion server job for executing conversion processing on a data conversion server and a storage job for instructing a copy of a table on storage; and executing the jobs, as recited in independent claims 1, 5, 6, and 10.

## 6. U.S. Patent Publication No. 2003/0055820 A1

This reference discloses a process for automating database conversion. The conversion process includes running a first program and then two batch command file programs. A program presents the user with databases from which a selection 20 can be made. The user selects the databases to be converted (step 20), selects the tables (step 30), specifies the target location to store the Enterprise JAVA Beans or EJBs (step 40), and specifies the application server on which the application will be run (step 50). Once the BeanGrinder 60 has been run, the program runs the batch command file to generate the EJB file 70. The program then runs another batch command file to deploy the EJB Jar file in the application server 80, after which the program exits. See Fig. 1A; and paragraph [0032].

While this reference discloses database conversion, it does not teach separation of the process into a server job and a storage job. More specifically, the reference fails to teach separating a data conversion job used for data conversion into a data conversion server job for executing conversion processing on a data conversion server and a storage job for instructing a copy of a table on storage; and executing the jobs, as recited in independent claims 1, 5, 6, and 10.

#### 7. U.S. Patent Publication No. 2004/0002983 A1

This reference discloses a database modifying method. Tables to be modified in terms of addition of columns, or the like, are outputted during an extraction process, and a

combination of tables having a minimized total number of records to be modified is selected from possible combinations of modification-candidate tables. The processor 100 receives the additional columns information 103 and table relation information 104 in which processing among tables up to generation of tables loaded to an MD schema from specification tables, master tables or the like is written. Then, the processor 100 lists all combinations of modification candidate tables by tracing back data-giving tables, that is, generation source tables table by table from modification target tables, and outputs information of modification candidate tables 106. See paragraph [0026]. In the process of detecting modification target tables, tables having columns to be added are listed from tables implemented in a relational database in order to ensure consistency when an axis or dimension is added to an MD schema. If there are two or more combinations of tables to be added, a combination of tables selected from all the combinations of tables are listed so that the total number of records in the selected combination of tables to be modified is minimized. See paragraph [0039].

This reference is directed to modifying tables in an analysis schema of a multidimensional database. It does not, however, teach the copying of a table by a storage job and conversion of data by a server job. More specifically, the reference fails to teach separating a data conversion job used for data conversion into a data conversion server job for executing conversion processing on a data conversion server and a storage job for instructing a copy of a table on storage; and executing the jobs, as recited in independent claims 1, 5, 6, and 10.

#### 8. Japanese Patent Publication No. JP 2001-022764

This reference discloses a device and a method to prevent work from being tried again because of arrangement error or erroneous arrangement by describing the information of constitutive articles and condition information charged to these articles in a tree structure for each article to be the object of the configuration. A data file in tabular format is converted into product information database. More specifically, an input converter 11 inputs hardware product information managed by a table format data file 2 and, in the case of conversion to the format of XML, a tree diagram preparing program 12 prepares a tree diagram from the product information according to automatic processing and stores it in a product information data base 10.

This reference discloses conversion of a data file in tabular format into product information database. There is no division of a data conversion job into a server job and a storage job. More specifically, the reference fails to teach separating a data conversion job used for data conversion into a data conversion server job for executing conversion processing on a data conversion server and a storage job for instructing a copy of a table on storage; and executing the jobs, as recited in independent claims 1, 5, 6, and 10.

(f) In view of this petition, the Examiner is respectfully requested to issue a first Office Action at an early date.

Respectfully submitted,

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